Proposal Research Problems

How to apply network analysis?

1) US Non-farm Payrolls, the indicator to show the economy situation. If this data is over the expectation, the FRB is tend to raise the interest rate, leading to the decrease of asset values. On the contrary, if the data is below the expectation, the FRB is tend to lower the interest rate, leading to the increase of asset values.
2) Gold price. As gold is regarded as a good option to hedge risks, if the price of gold increases, the asset values are more probable to decrease. On the contrary, the asset price will go up.
3) VIX, the risky index. If VIX goes up, the financial market is more volatile and risky. Therefore, people will sell their risky assets, leading to the decrease of price. If VIX goes down, the price of risk assets goes up.
4) FRB base interest rate, the indicator to show the liquidity of the economy and financial market. If the base interest rate is low, the price of risky assets goes up because people love to invest on risky assets when the liquidity of monetary policy is high. On the contrary, if the FRB raise the base interest rate, the price of risky assets goes down.
5) US treasury/bond interest rate. If the bond interest goes up, the value of bond decreases, demonstrating that the people are more probable to buy risky assets. And therefore, the price of risky assets goes up.

How are investment firms connected?

1) Classification of Investment Companies: i. Fund Position Value / ii. Preference on the market size of invested companies(small/medium/large) / iii. Preference on investment discretion
2) Matrix analysis based on the above characteristics, eg. Fund management value and preference on the size of invested companies.
3) How to distinguish the similarity of investment strategies among different investment management companies. (same invested companies?market size of invested companies?buying shares)

Has the connectivity increased?

Calculated the sum distance of nodes in the same clustering.